

Class 11

Topics

- Renege Model
- Round-Robin Scheduling Model
- Event Graph Snippets

Multiple Server Queue With Reneging

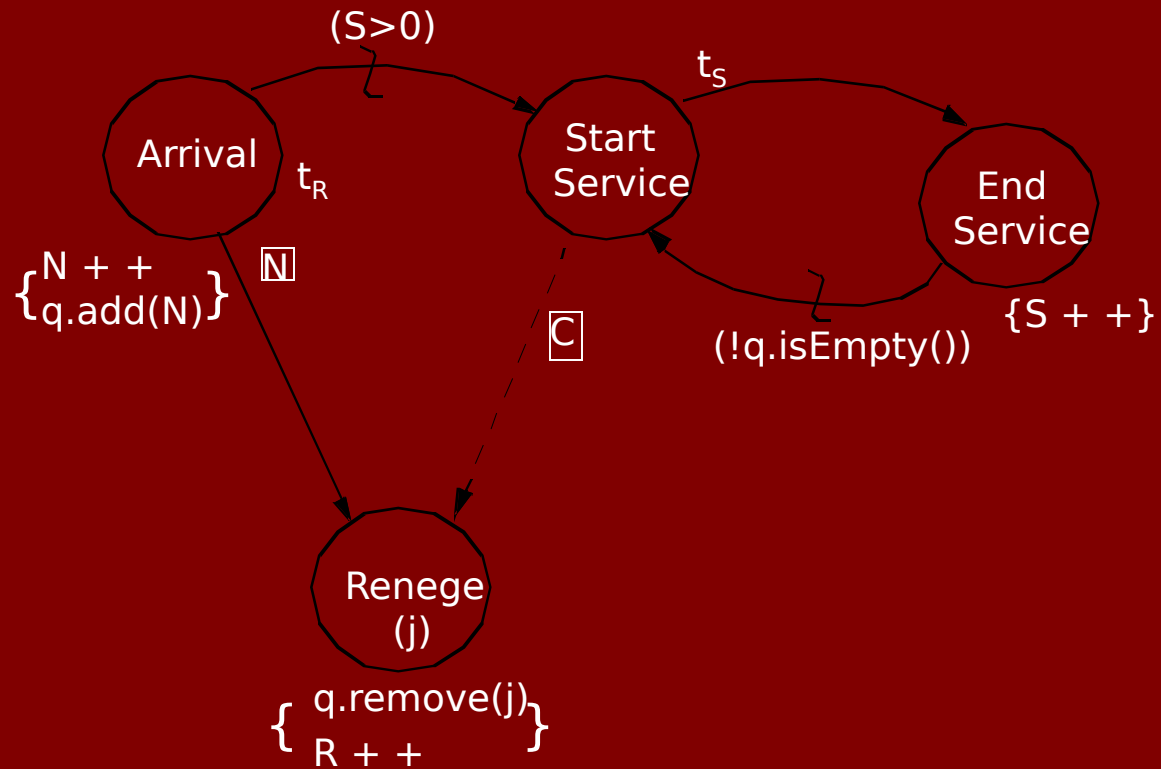
Parameters

- K - # servers
- $\{t_s\}$ - service time
- $\{t_R\}$ - renege time

State Variables

- q - FIFO queue containing customer identity #'s
- S - # available servers
- N - # assuming customers
- R - # reneging customers

Event Graph



Discrete Event Simulation Modeling

Round-Robin Scheduling

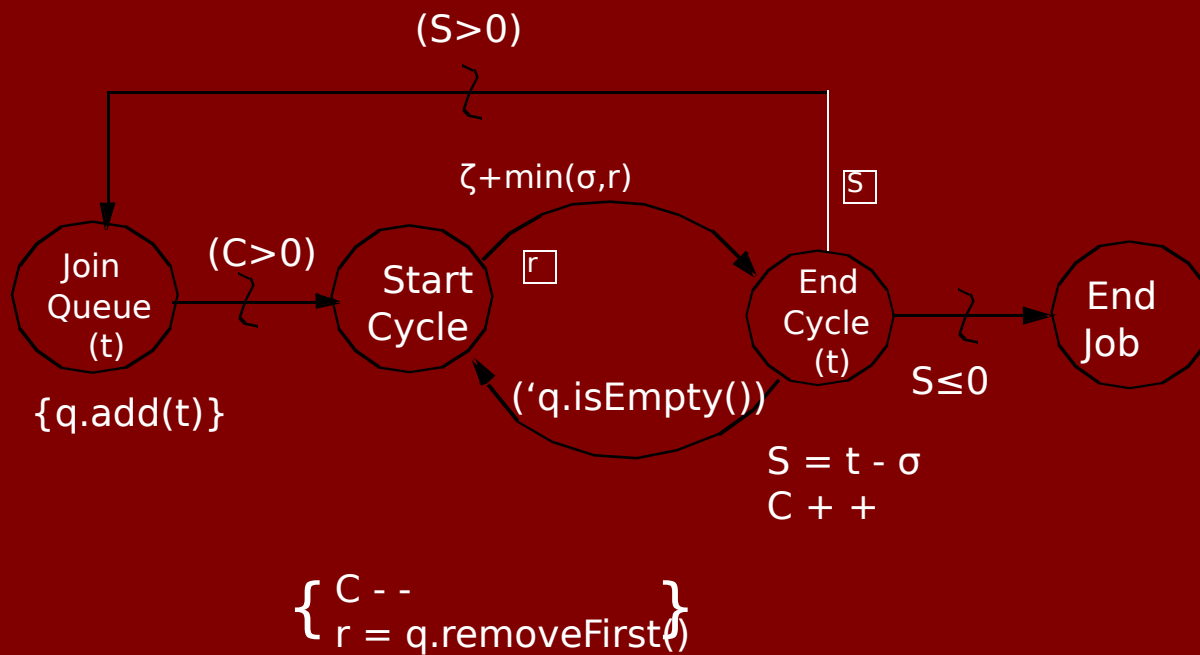
Parameters

- $\{t_j\}$ job time
- σ quantum
- ζ swap time

State

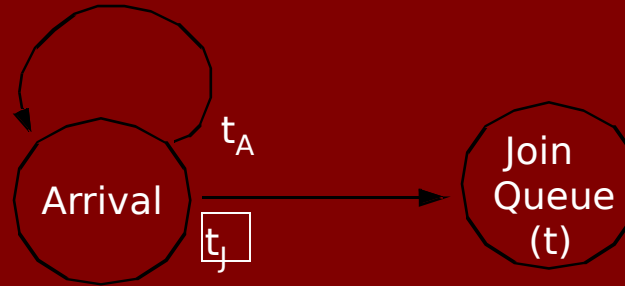
- C = # available procedures (0 or 1)
- q = fifo container of remaining job time
- δ = remaining time of job finishing cycle, local

Event Graph (*Processor*)



Some Possible Arrivals

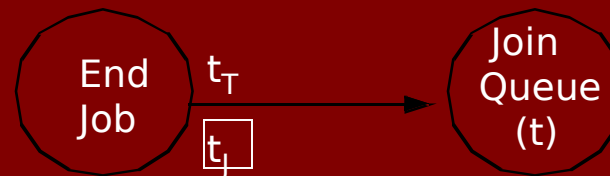
1. Arrival Process



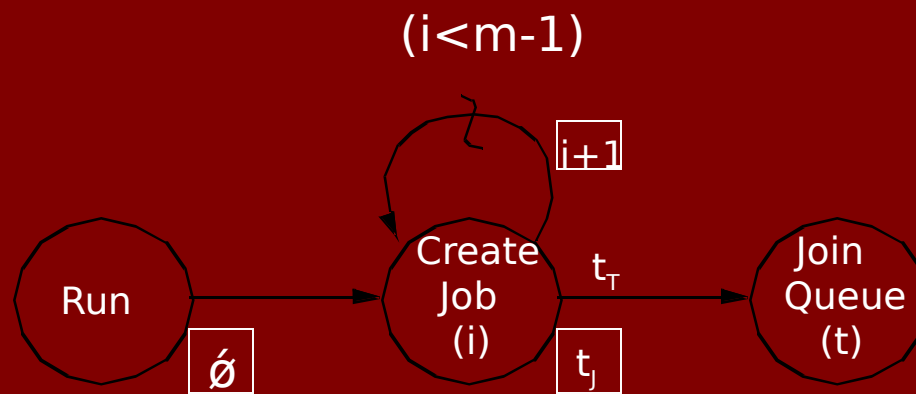
2. Finite Calling Population

t_T - "think times"

m - # potential poles

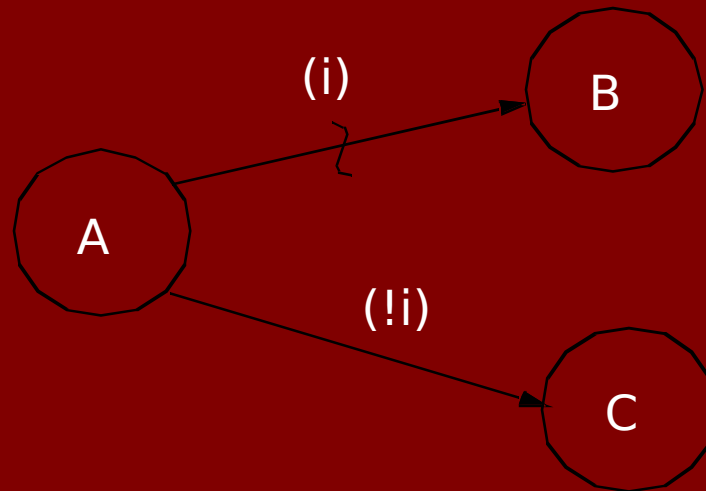


Initialization

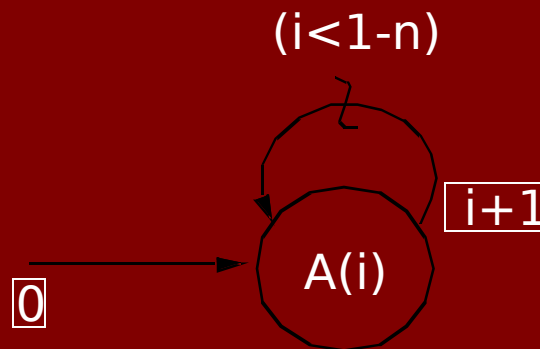


Event Graph Snippets

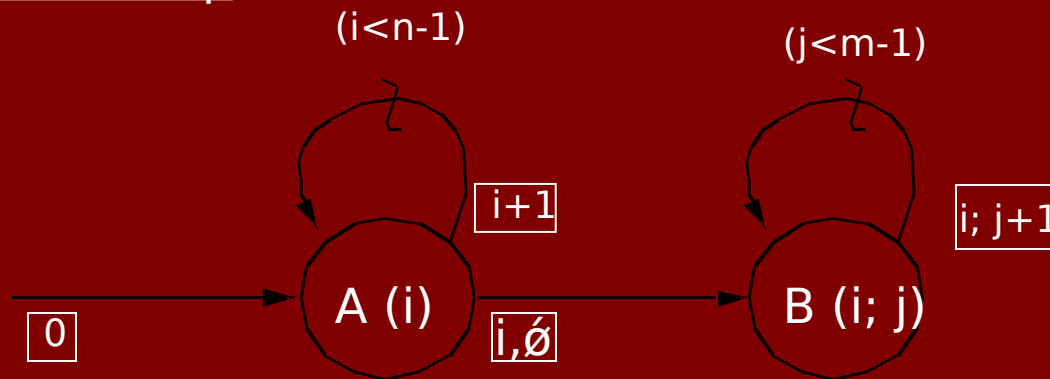
"if" Test



"for" Loop



Nested for Loop



Sequential for Loop

